MARCH 1, 2000

I. DEPARTMENT/AGENCY

The Department of Health and Hospitals

II. PROJECT TITLE

OCDD Specialty Telemedicine Partnership

III. PROJECT LEADER

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IV. DESCRIPTION OF THE PROJECT

This is a project intended for the provision of specialty medical care for residents of the state's developmental centers operated by the Office for Citizens with Developmental Disabilities (OCDD) within the Department of Health and Hospitals (DHH). It entails a telemedicine partnership between OCDD and the LSU Medical Center (LSUMC), in which LSUMC in New Orleans serves as a telecommunications gateway to expertise wherever it exists by way of a multi-functional data/voice/compressed video network. Utilizing standards-based, inter-operable, state-of-the-art communications technology, OCDD accesses medical consults, clinics, and education in specialties related to developmental disabilities for the care of its residential clients. Further, under the concept of community capacity building, OCDD shares this knowledge with other practitioners locally to advance the quality of medical care throughout the state.

V. PROJECT STATUS

A. Brief Summary

The project nears fruition. Exhaustive research, planning, and preparations have preceded the selection and acquisition of the telecommunications equipment for telemedicine. The essential telemedicine components have been delivered and will be installed by the end of March. Likewise, all T1 lines have been ordered and will be operational before the end of the month. In fidelity to the proposal to the La. Technology Innovations Fund (LTIF), DHH expects the project to realize economies of scale and functionality in order to fully leverage the state's investment in telecommunications infrastructure.

Indeed, a significant innovation has emerged in the development of the project. Tests of the technology presage the success of fractionalizing T1 transmission lines to carry data along with H.320 standard video/voice simultaneously. It further allows the possibility of running H.323 video/voice on IP, which the project will initiate in beta mode to evaluate the impact of the standard on both LAN and WAN. Diagnostic quality telemedicine on a fractional T1 means cost savings for any agency that seeks to upgrade its data capabilities, while enjoying the benefits of videoconferencing, by moving the data traffic on existing 56k or ISDN lines to the more robust T1's deployed for video.

B. Accomplishments

Events since the last progress report in September 1999 include the following accomplishments:

- The demonstration and evaluation of all equipment submitted/suggested by vendors.
- The operation of fractional T1 lines with acceptable levels of performance.
- The comparison of H.320 and H.323 standards, with the adoption of H.320 for telemedicine and H.323 for beta assessment of related applications.
- The creation of a statewide telemedicine network for purposes of the present project and future uses.

C. Problems Encountered/Action Taken or Planned

Three major problems have been encountered and overcome in implementing the project thus far. First, extending the network to all nine developmental centers has been a logistical puzzle solved only through non-stop travel, troubleshooting, and teamwork. Located predominantly in rural areas of the state, they reach from Bossier City and Ruston in the north to Belle Chasse in the south, and from Hammond in the east to Iota in the West. But it is in negating the distances between the developmental centers that gives value to telemedicine. Transporting images and information, rather than people, proves financially efficient and medically preferable in delivering essential services to the citizens who populate Louisiana's developmental centers.

Second, effectively fractionalizing T1 telecommunications lines involved an innovative approach to the technology and its capabilities. A CSU/DSU that could accomplish this task had to be identified and verified. In so doing, it promises maximum utilization of T1 bandwidth to deliver both data and video/voice that satisfies their respective, demanding specifications.

Finally, experimentation with H.323 caused breakdowns in existing LANs and WANs. Trouble of this sort seems inherent in IP video equipment currently available. However, the advantages of the H.323 standard, and technology's inevitable progress in this direction, warrant continued activity in this arena. Such activity can only speed the progress by exposing flaws so they can be fixed, and this project will thereby advance successful innovation.

D. Major Milestones (Original vs. Current Estimate)

In addition to the above accomplishments, major milestones measured from July 1, 1999, include the following:

	ORIGINAL	CURRENT
Site visits	2 months	Complete
Site modifications	3 months	Complete
Selection of telemedicine components	4 months	Complete
Network connectivity	5 months	12 months
Protocols and procedures	5 months	Complete
Priority site implementation	6 months	12 months
Network-wide implementation	12 months	13 months

Any delays in meeting milestones have been attributable more to the exploration of opportunities than the disruption of difficulties. For example, a thorough investigation of the economics and potential of protean technologies inspired the decision half way into the project year to construct a telemedicine network rather than lease services from a telecommunications carrier. A proprietary network assures patient confidentiality, which is critical to telemedicine, while obviating certain on-going expenses, which too is

critical to telemedicine. The goal remains to give life to a network that will constitute an enduring cornerstone of electronic state government.

VI. COST VS. BUDGET

Category	Budgeted	Actual	Obligated	Projected Surplus
A. Equipment	$733,792*	$609,197.50	$124,594.50	$0
B. Software	$0	$0	$0	$0
C. Telecommunications	$170,250*	$0	$170,250	$0
D. Professional/Contract Services	$52,940	$52,940	$0	$0
E. Other Costs (borne by DHH)	$55,000	$5000	$50,000	$0
Total Project Cost	$1,011,982	$667,137.50	$344,844.50	$0

* Change in budgeted categories by transferring $300,000 from telecommunications to equipment, reflecting the decision to build rather than lease a telemedicine network, consistent with the scope and intent of the LTIF grant. Approved by memo from LTIF Chairperson.

VII. ITEMIZED EXPENSES AND FINANCIAL OBLIGATIONS INCURRED DURING THIS REPORTING PERIOD.**

Equipment	Units	Total Cost
1. Larscom CSU/DSU and cabling	16	$27,581.50
2. Polycom V.35 ViewStations	11	$128,589
3. Video monitors	22	$22,454
4. Scan converters	11	$26,312
5. VCRs	11	$7,480
6. ViewTech monitor carts	22	$15,730
7. Document cameras	11	$20,970
8. Cables for Polycoms	22	$2,079
9. Installation	11	$9,350
10. Madge Video Access Switch 60 for network	1	$66,081
11. Accord MCU/Bridge	1	$229,631
12. ViewTech 3 year warranty on all equipment		$52,940
Total		$609,197.50

** Documentation on file at DHH.